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Fact Sheet

Benefits of Soil Conservation

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United States
Department of
agricultureSoil
Conservation
Service

SAC

Who should care about soil conser- vation?

Only people who
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- are concerned about our environment
- want a good supply of fresh, clean water
- want a choice of nutritious food at reasonable prices
- like to hike, camp out, swim, ski, hunt or fish.

How does soil conservation improve our environment?

It is of benefit to society to have an environment with adequate supplies of safe drinking water, clean air, productive soils, and recreational areas.

Erosion goes on all the time. Normal, geologic erosion occurs where water, wind, or other natural agents remove soil from slopes that have not been disturbed by humans. Soil erosion by water may occur anywhere there is enough rain to cause runoff, or where land is flooded by irrigation, snowmelt, or other causes. Land used for grazing or timber production also may be eroded by water if overgrazing or harvesting leaves the soil exposed. To avoid erosion, the soil must be protected from moving water: cover crops, grasses, trees, terraces, or sown strips of different crops can all help control runoff.

The conservation provisions of the 1985 Farm Bill were designed to reduce soil erosion. They require farmers and ranchers who participate in U.S. Department of Agriculture (USDA) program benefits to develop and begin applying a conservation plan on highly erodible cropland by Dec. 31, 1989, to remain eligible for these benefits. A conservation plan helps reduce soil loss to levels that are technically and economically achievable.

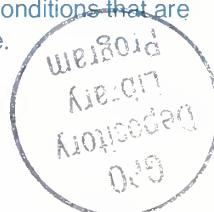
The Farm Bill also requires that producers who want to remain eligible for USDA program benefits cannot drain any wetlands for agricultural production (the "swampbuster" provision). What is a wetland? The Farm Bill defines it as land having hydric soil (covered with standing water or saturated for most of the growing season) and capable of supporting hydrophytic (water loving) plants. Wetlands can range from large potholes to swamps covering hundreds or thousands of acres. In addition to having aesthetic value, wetlands perform a number of functions that benefit our environment. They help restore the water level of rivers by recharging ground water. Water collects in a wetland rather than running off, and "percolates" down through the soil layers. Eventually it may emerge in a spring or run underground to a river. Water standing in wetlands traps pollutants such as fertilizers and pesticides and prevents them from entering other water sources. Wetlands also provide essential habitat for waterfowl and other wildlife.

To further improve the environment, Soil Conservation Service (SCS) conservationists also are prepared to help urban and suburban residents select shrubs and trees that attract wildlife such as songbirds.

How does soil conservation affect our food supply?

Soil erosion may increase the cost of farming, contributing to lower profits for farmers and higher food prices for consumers. On-farm damage from erosion can include lower yields of crops or forage, higher fertilizer requirements, more difficult tillage, and higher bills for farm maintenance.

Soil conservation helps keep our streams, lakes and bays healthy and hospitable to fish and shellfish. Many people like nothing better than a good seafood dinner. Controlling soil runoff and managing agricultural chemicals properly help provide aquatic conditions that are necessary for fish, crabs, clams, oysters, lobsters and others to thrive.



SCS specialists also provide technical assistance to individuals contemplating or engaged in aquaculture, the cultivation of fish—such as catfish—and shellfish.

How can soil conservation improve our recreation opportunities?

Clear streams for fishing, lakes for swimming, beaches with clean sand for sunning, habitat for game and other wildlife, and trees and ground cover that attract birds for watching...all help to make our leisure hours more enjoyable.

The demand for outdoor recreation within reach of population centers has grown rapidly in recent years. SCS and local soil and water conservation districts are helping to meet this growing demand by designing small watershed projects, which can include public facilities for swimming, boating, fishing, picnicking, and camping. As authorized by Congress, USDA can give technical and financial aid to local organizations for planning and carrying out watershed projects. Objectives of the legislation are watershed protection, flood prevention, agricultural water management, recreation, municipal and industrial water supply, and fish and wildlife development.

Other conservation measures that provide recreational benefits include small ponds and lakes built to control erosion or increase water supplies on farms and ranches, as well as shoreline stabilization.

How can the Soil Conservation Service assist the homeowner?

In house hunting or buying land to build on there are some visible signs of problem soils that you can look for. You can identify wet soil by the kind of vegetation growing on it, such as skunk cabbage, rushes, cattails, sedges and alder. If you walk across an area and it seems soft and spongy, especially when it has not rained for a while, it may be a wetland. Contact your local Soil Conservation Service office to find out whether there is a soil survey available for the land. A soil survey, plus an onsite investigation, can answer such questions as:

- is the soil stable?
- is the area subject to flooding?
- will storm runoff drain safely away from the house?
- does the soil have a seasonal high water table that can cause basement flooding or septic system failure?
- is the soil deep enough for the basement to be dug economically
- can garden and landscape plants take root and thrive? or
- is the soil so steep that erosion may be severe?

You can control erosion to some extent by landscaping: trees, shrubs, and ground cover can prevent excessive runoff of rainwater. But choose the appropriate plants and trees for the soil in your yard—local nurseries can suggest kinds.